

## REMARKS

Applicants thank the Examiner for entering the Amendment After Final submitted on November 21, 2008.

Applicants continue to note that the Final Office Action of September 30, 2008 does not provide a reason as to why it is a first Office Action Final, and Applicants did not consider it appropriate. While the Office Action dated 12/7/2007 characterizes Cain '938 as having something to do with "encapsulation," Cain '938 at the cited passage of Col. 5, lines 46-65 is completely silent regarding encapsulation. In contrast, Cain '938 merely teaches blending fat and sugar, i.e., "mixing thoroughly" (not creating particles where one is enrobed in another). Applicants had respectfully request that the finality of the September 30, 2008 Office Action be withdrawn but have not received a response. Applicants also respectfully request that the rejection be reconsidered on its merits, and withdrawn.

Presently, claim 26, which is dependent to claim 19, has been canceled, without prejudice, to simplify issues for appeal should that become necessary.

Claim 19 has been amended to specify the amount of palmitic fatty acid (C16:0) based on the total amount of fatty acids is between 30 and 70% wt. Support for this subject matter, not previously considered by the Examiner, may be found in the Specification at page 8, lines 25-28. **Applicants respectfully request that this subject matter be examined and that a non-Final action or a Notice of Allowance be provided.**

Care has been taken not to introduce any new matter.

### **The Present Invention**

The present invention as set forth in the independent claim 19 is directed to a creamer, whitener or non-dairy cream alternative comprising 10-100% by wt of **particulates**, said particulates comprising:

about 20-85% by wt of a matrix material comprising a protein selected from the group consisting of a dairy protein, hydrolysed protein, gelatin, soy protein, and mixtures thereof; and

about 15-80% by wt of triglycerides of fatty acids, wherein of said triglycerides the amount of triglyceride of 3 saturated fatty acids of 16 or more carbon atoms (H3) is at least 20% wt based on the total amount of triglycerides; wherein the amount of palmitic fatty acid (C16:0) based on the total amount of fatty acids is between 30 and 70% wt;

wherein of said triglycerides the amount of triglyceride of 3 saturated fatty acids of 16 or more carbon atoms (H3) and triglyceride of 2 saturated fatty acids of 16 or more carbon atoms and 1 cis-unsaturated fatty acid (H2U) taken together is at least about 55% by wt based on the total amount of triglycerides;

wherein at least 60% by weight of the particulates has a **size of 10-600  $\mu$ m**; wherein said triglycerides of fatty acids are dispersed in said matrix material as discrete regions; and

wherein said particulates are at least partly covered or **encapsulated** by about 20 % to about 80% by wt of an encapsulating or covering material.

Support for the claimed terms may be found throughout the Specification, and for example at page 3, lines 13-19; and page 8, lines 25-28.

The present invention as set forth in the independent claim 20 is directed to a soup or sauce concentrate composition.

Support for the claimed elements may be found throughout the specification and particularly at page 3, lines 13-19; page 7, line 21 (soup and sauce concentrates).

**35 U.S.C. § 103**

**Claims 3, 4, 9-11, 13, 19-21** stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cain, et al., US 5,718,938 in view of Bodnar, et al., US 2002/0098275.

According to Examiner, Cain '938 discloses a bakery dough fat comprising a mixture of triglycerides, column 1, lines 35-48; Cain's invention contains mixtures of saturated fatty acids having triglycerides with 16 or more carbon atoms and triglyceride fatty acids with 16 or more carbon atoms with cis-unsaturated fatty acids, column 2, lines 18-43.; The invention contains 5-80 wt. % of fat, 0-50 wt. % of water, 0-4 wt. % of salt, 20-80 wt. % of flour, etc.; Cain describes a triglyceride ingredient B that is the same ingredient as Applicants H3 and an ingredient A that is the same as Applicants H2U, column 3, lines 16-31.; These ingredients are combined to form a fat mixture containing 10-75 wt. % H3 or S3 and 0-90 wt. % H2U or SUS.; column 4, line 62 – column 5, line 34.; Therefore, H3+H2U may incorporate up to 100 wt. % of the fat ingredient.; Also the percentages of H and U, and the ratio of H3:H2U may be any varying range within 10—75 wt. % H3 or S3 and 0-90 wt. % H2U or SUS of the fat composition.

Further, the Examiner interprets Cain '938, with which Applicants strongly disagree, as disclosing that the fat blend is partially covered or encapsulated by a sugar matrix and dispersed within a salt egg and flour matrix, referring to col. 5, lines 46-65.

The Office Action admits that Cain '938 does not teach

- (1) the particulate size of the composition;
- (2) the process by which the composition is dried;

- (3) the addition of protein to the homogenous mass of fat mixture containing a particulate size of 1-1000 nm (**Applicants would add that Cain fails to disclose or suggest fat dispersed in a protein matrix**);
- (4) the food product is a sauce, soup or soup concentrate (**Applicants would add “creamer”**);
- (5) the addition of herbs, spices or vegetable powder to the homogenous mass of fat mixture in order to create a creamer or non-dairy creamer, flakes, cubes or particulate broths for soups or sauces.

Bodnar is cited for the protein and the Office Action is not persuaded by the intended use of the composition.

Applicants respectfully traverse.

Additional differences between the present invention over Cain in view of Bodnar include but are not limited to:

- (6) amounts of saturated fat and trans fat (**SAFA**), particularly triglycerides of palmitic fatty acid; and
- (7) amount of palmitic fatty acid (C16:0) based on the total amount of fatty acids is between 30 and 70% wt.

Bodnar fails to cure the deficiencies of Cain '938. A person of skill in the art would not find it predictable to come up with the present invention in particulate matter as claimed. The cited references do not disclose such particulate matter. Applicants respectfully submit that in order to manufacture a fat-containing matter in particulate form, which also should perform well in terms of e.g. fat-staining, the fat will need to meet certain requirements in terms of melting behavior which are entirely different from the melting behavior fats need to perform in batter and dough.

Specifically, the relevance of Bodnar to the present invention is not understood. The Bodnar compositions by no means fulfill the claimed requirements with respect to the presence of certain triglycerides nor the level of saturated fatty acid moieties (saturated fat is solid fat). The oil of Bodnar is essentially free of solid matter at ambient temperature. While the present invention relates to particulate matter, Bodnar is directed to microemulsions that are transparent or translucent and that contain relatively large amounts of water. See Abstract and Para. 12. Bodnar's compositions are fully liquid and are particularly not suitable for encapsulation. Also, not being solid at all, the Bodnar compositions will be very prone to staining. Thus, a person of ordinary skill in the relevant art would not find it predictable to come up with the savory particulate composition according to the present invention on the basis of the cited art.

None of the formulations cited in the prior art will allow to deliver the functionality of the inventive fat compositions being particularly soft due to the limitation in saturated fat but still functional for the desired applications. This means than long term storage at ambient to elevated temperature has to be withstood without oiling out, fat staining and the delivery of off flavours. On top of this it is at least for Bodnar certainly and for Cain practically impossible to spray coat to fabricate the desired creamer. This is due to the structure of the material at elevated/ambient temperatures. The liquid will not be present as distinct particles to be encapsulated. The materials according to Cain will also due to their soft structure coalesce and form large lumps not suited for the production of particulate matter suited to be used as a creamer.

Applicants respectfully submit that the claims are not obvious over Cain in view of Bodnar. With reference to **differences (1), (3) and (4)**, there is no predictability, suggestion or incentive in any or all of the cited references to use the **particulates** of the present invention in a creamer, whitener or non-dairy alternative in order to attain a creamer, whitener or non-dairy alternative which is low in trans-unsaturated fatty acids, exhibits good organoleptic and physical properties, and is low in lauric acid. Use of such creamer in cream-style soups is likewise not predictable. The particular fat mixtures

selected according to the present invention in combination with a protein matrix have the appropriate physical properties in terms of melting behaviour, crystallization behaviour, brittleness, organoleptic properties, taste, as well as physical and chemical stability.

With reference to differences (3) and (4), Claim 19 claims a creamer. A dough is not a creamer and can not be used as such. Most important difference is the particulate shape and the dry appearance, that is not present in a dough. P5L30-35. P1, L20-30 describe the features a creamer should fulfil, among which e.g. free flowing, L32. It is not obvious for one skilled in the art to modify a dough by putting it in a drying process (p1, L31) to get **particulates of a specific size** to use as a creamer, without any use of hindsight and knowledge that the composition of Cain is suitable to dry (it comprises also other fats).

With reference to differences (1) and (3), the particulate form and particle size are critical for the encapsulated product as claimed. Particle size for the use as a creamer is an essential feature to establish proper dissolving properties and free flowing character. In contrast, the structures of the cited art do not need to be dissolved in hot water and the particle size of fat and particle as such are less relevant for them. It is not just a straight forward choice to coat the particles (with protein and carbohydrate), as suggested by the Examiner. P3, L14 describes the requirement of specifically suitable materials that can be combined with the fat.

With reference to difference (6), Cain, U.S. 5,718,938 discloses manufacturing a batter, a dough, and bakery products such as cookies and cakes with lower than normal SAFA (saturated and trans fatty acid residues). Such baked goods are usually non-savory applications (usually sweet) and usually not dry. Thus, a person of ordinary skill in the relevant art of dry savory foodstuffs like particulate soup and sauce concentrates, would not find it predictable to come up with the present invention based on Cain in view of Bodnar. This is particularly because the claimed applications of the claimed encapsulated particulates require and were selected so as to achieve the resulting

product appropriate physical properties in terms of melting behaviour, crystallization behaviour, brittleness, organoleptic properties, taste, as well as physical and chemical stability. Further with reference to difference (6), Cain and Bodnar are mainly relating to supplying nutrition via the delivery of unsaturated fatty acid by controlling/limiting the level of saturated fatty acids. Thus, the cited art relates to more liquid products with preferentially low levels of solid fat at temperatures such as the body temperature reflected in limitations of the N35, solid fat content at 35 C. In contrast, the present invention requires a relatively high amount of palmitic fatty acid, which is a saturated fatty acid that tends to be solid at body temperature. Cain '938 does not make predictable the selection of fats according to the present invention. This selection provides the unique properties needed for the particular claimed applications. This selection and the unique properties lend a point of difference to the particular end use presently claimed. Moreover, the particular properties needed are uniquely selected and are not a matter of mere experimentation.

With reference to differences (6) and (7), Claim 19 emphasizes that the triglyceride fat in the composition is made up of at least 20% wt of saturated fatty acid moieties (H3, such as palmitic fatty acid). This certainly results in more saturated fatty acid moieties overall than Cain '938. Saturated fat is hard fat and less amenable to melting, as one skilled in the art would appreciate. These properties are critical for the particulate creamer, whitener or non-dairy cream alternative according to the present invention.

The particulate creamer of present invention is clearly distinguishable from a dough. **A creamer requires different properties than dough.** Claim 19, as amended specified 30-70% palmitic acid (p8L25-28). In contrast, Cain uses 3% "palmitic content". Palmitic fatty acid provides excellent creaming effects. It is a natural saturated fatty acid. This is required to give a solid structure to the creamer at room temperature. The creamer should not form lumps. In dough lump formation is no problem, and a certain stickiness improves even the kneadability. The stickiness is no problem in dough, as

dough is not used at room temperature, but first baked, whereas a creamer is used at room temperature, in e.g. a dry soup, or other application, and should melt when put in hot water. This differentiates the creamer of the present invention from a dough of Cain. It would not be predictable to one skilled in the art to modify the dough of Cain to achieve flowable creamer particulates, as the stickiness will go down and the aim of the invention of Cain is to lower saturated fatty acids (to that extent Cain even teaches away).

An obviousness rejection is proper only when “the subject matter as a whole would have been obvious at the time the invention was made ...” (emphasis added). 35 U.S.C. 103. Applicants respectfully submit that the Office Action has improperly chosen certain aspects of one reference and combined them with aspects of other references, without showing where the motivation is to combine them to come up with the subject matter of the present invention as a whole, within the meaning of 35 U.S.C. 103. Applicants submit that the pending claims are not obvious over the cited references, under 35 U.S.C. 103, especially in view of the present Amendment. Reconsideration and withdrawal of the rejection is respectfully requested.

As the Office Action has not cited a reference relating to particulate soups or sauces, and inter alia, for the reasons above, a prima facie case of obviousness is lacking. Accordingly, the obligation has not arisen for Applicants to provide supporting factual evidence in addition to that in the Specification.

Accordingly, the claims are deemed to be in condition for allowance.



### **CONCLUSION**

Reconsideration of the rejection is respectfully requested in view of the above claim amendments and remarks. It is respectfully requested that the application be allowed to issue.

If a telephone conversation would be of assistance, Applicant's undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,

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